UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,473	02/15/2006	Michiel Errit Roersma	NL031009	2553

24737 7590 03/24/2010

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
FARAH, AHMED M	

ART UNIT	PAPER NUMBER
3769	

MAIL DATE	DELIVERY MODE
03/24/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,473	ROERSMA ET AL.	
	Examiner	Art Unit	
	Ahmed M. Farah	3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 0209*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-7, and 11-14 are again rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. US Patent No. 7,217,266.

Anderson et al. disclose apparatus and method of use for dermatological treatment, the apparatus comprising: an imaging system, a control system, and a treatment system. The imaging system includes an 2-D sensor or a camera for real-time detection of the target tissue parameter(s) and for generating a feedback signal to the control system. The control system receives a feedback signal from the detector/ imaging system and in turn adjusts parameters of the treatment energy based on the desired treatment (see Figs. 8A, 8B, 13; and claims 1, 2, 19 and 20).

Anderson et al. teach that the imaging and control system are configured to extract in real-time the features of the target tissue (e.g., for hair removal, see Figs. 32A-32D and col. 6, lines 15-32). They further teach that the treatment energy source is selected from monochromatic light sources and broadband light sources generating

pulsed or cw light beams (see col. 11, lines 17-22). The treatment light and/or probe beam is/are directed to desired tissue site and the detector system monitors a light reflected from the tissue site to determine the tissue parameters as claimed.

Anderson et al. further teach that the treatment energy has a wavelength selected from the wavelength range of between 488 nm to 1064 nm; energy density of 1-10 J/cm^2; and pulse duration of between 1-10 ms (see Fig. 5; col. 31, lines 45-49; and col. 34, lines 13-14).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, and 3-14 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. Pub. No.: US 2004/0034319 in view of Coleman et al. US Patent No. 5,628,744

Anderson et al. teach a method and apparatus for hair growth management by applying low energy optical radiation to a treatment area of a patient's skin (abstract). A lamp apparatus with wavelengths between 600 and 1200 nanometers is disclosed using pulse durations of 10 milliseconds and a fluence of from 0.27 to 9.9 J/cm^2 (Table 2). The range in fluence is disclosed as varying due to the color of the hair, thus teaching that hair properties influence the power selected by the control box (see Fig. 5, # 24) during

operation. The control box must be capable of setting the maximum fluence and the pulse durations to those in the tables.

Anderson et al. do not teach a feedback control comprising a sensor for measuring light reflection from the skin as claimed. However, the influence of skin type as a factor in optical hair removal is known in the art. With respect to claim 9 of the instant application, Anderson et al. further fail to teach the use of speed sensor as claimed.

Coleman et al. teach an alternative dermatological apparatus and method of use, the apparatus comprising a treatment light source for applying treatment light to a desired tissue site, a reflectance sensor for monitoring light reflected from the treatment site for monitoring tissue related parameters, and a control system for adjusting parameters of the treatment light based on the detected tissue parameters as claimed (see the abstract, Figs. 3-5, col. 6, line 20+, and claims 1-4). Coleman et al. further teach that the device may be used for the treatment of hair follicles (see col. 4, lines 66-67). With respect to claim 9 of the instant application, the apparatus of Coleman et al. comprises a sensor system 58 for detecting the speed of the apparatus over the treatment site to adjust the treatment energy accordingly (see col. 5, lines 52-59).

Therefore, at the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to modify Anderson et al. in view of Coleman et al. and use a tissue detection system, such as reflectance sensor, to monitor changes in the tissue parameters during the irradiation treatment in order to provide proper radiation levels to treatment site. It would have been further obvious to one of ordinary skill in the

art to use a speed sensor to control the irradiation light based on the speed of the treatment light over the target region. This would alleviate over exposing one area while under exposing other areas. It would also help to evenly distribute light of sufficient fluence to the treatment site.

Response to Arguments

Applicant's arguments filed on September 22, 2009 have been fully considered but they are not persuasive. The applicant makes the following arguments:

With respect to the rejections of the claim under 35 U.S.C. 102(e) as being anticipated by Anderson et al., US Pat. No. 7,217,266 (hereinafter, Anderson '266), the applicant recognizes that the reference teaches the use of two separate light sources, one monochromatic or multi-chromatic light source and a treatment light source. The applicant further recognizes that the reference teaches the use of feedback loop control system comprising a detector configured to detect light reflected from the treatment source, and a controller adapted to modify parameters of the treatment energy base on detected properties of the tissue being treated.

Nevertheless, the applicant argues that the detected signal, back-scattered signal is generated by the monochromatic /multi-chromatic light source, not the treatment laser. The applicant further argues that, in the claimed invention, the detected light reflected from the skin is generated by the treatment source.

In response to this argument, the applicant's claims recite 'a source of electromagnetic radiation that emits light in the wavelength range of between 550-1200

nm' a sensor adapted to detect light reflected back from skin surface being irradiated, and control system adapted to modify the output of the radiation source based on information of tissue properties of the irradiated skin deduced from the detected backscattered signals from the skin. However, the applicant's claims fail to recite that a **single** electromagnetic radiation provides both the probe light beams and treatment light being modified as argued. Moreover, as admitted by Anderson '266, the reference clearly teaches the use of treatment system (this includes both the probe and treatment light sources) for directing optical energy to a body tissue being treated, the treatment system comprising electromagnetic radiation sources selected from monochromatic and multi-chromatic light source, a sensor system adapted to detect light back-scattered from the tissue being treated, and controller adapted to modify the output of the treatment light source based on information of the irradiated tissue contained in the detected backscattered tissue as claimed. Hence, the examiner's position is that Anderson '266 anticipates the recited claims limitations.

With respect to the claims rejections under 35 U.S.C. 103(a), the applicant makes similar argument as discussed above. Hence, the examiner reiterates his response stated above and maintains his prior art rejection of the claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M. Farah whose telephone number is (571) 272-4765. The examiner can normally be reached on Mon, Tue, Thur and Fri between 9:30 AM 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johnson Henry can be reached on (571) 272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ahmed M Farah/
Primary Examiner, Art Unit 3769

January 2, 2010.